

CLAIM(S)

What is claimed is:

1. A method of dyeing a blend of modacrylic fiber and aramid
5 fiber employing a cationic dye and a dye assistant wherein the modacrylic
fiber is present in range of 1 to 99 weight % and the aramid fiber is present
in a range from 99 to 1 weight % on the basis of modacrylic fiber and
aramid fiber comprising the step of:
contacting the blend at a temperature in a range from 70 to 100
10 degrees C. in an aqueous dye bath containing a cationic dye and a dye
assistant present in an amount not greater than 15 grams per liter of dye
bath, said dye assistant selected from the group consisting of aryl ether,
benzyl alcohol, N-cyclohexylpyrrolidone, N,N-dibutylformamide,
N,N-diethylbenzamide, hexadecyltrimethyl ammonium salt,
15 N,N-dimethylbenzamide, N,N-diethyl-m-toluamide, N-octylpyrrolidone,
blend of N,N-dimethylcaprylamide and N,N-dimethylcapramide and
mixtures thereof.
2. The method of claim 1 wherein the fibers are present as a
20 yarn.
3. The method of claim 1 wherein the fibers are present in a
fabric.
- 25 4. The method of claim 1 with 40 to 70 weight % modacrylic
fiber, 5 to 20 weight percent p-aramid fiber and 10 to 40 weight % m-
aramid fiber on a basis of the modacrylic and aramid fibers.
5. The method of claim 1 wherein the blend additionally
30 contains an abrasion resistant fiber.
6. The method of claim 5 wherein the abrasion resistant fiber is
nylon.

7. The method of claim 1 wherein the blend contains an antistatic component.

5 8. The method of claim 1 wherein the dye assistant is present in an amount not greater than 12 grams per liter of dye bath.

9. The method of claim 8 wherein the dye assistant is present in an amount not greater than 10 grams per liter of dye bath.

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10. The method of claim 1 wherein the dye assistant is aryl ether or benzyl alcohol.

11. A garment which includes a blend of fibers dyed by the
15 method of claim 1.